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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,469	10/17/2001	Lou King	PD-201079	5113

7590 06/27/2006

Hughes Electronics Corporation  
Patent Docket Administration  
P.O. Box 956  
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El Segundo, CA 90245-0956

EXAMINER
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KO, DANIEL BOKMIN

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/978,469	<b>Applicant(s)</b> KING ET AL.	
	<b>Examiner</b> Daniel B. Ko	<b>Art Unit</b> 2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This action is responsive to the application filed on 10/17/2001. Claims 1-32 have been submitted for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 16, 31, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by MEDIC: a memory and disk cache for multimedia client, Edward Chang and Hector Garcia-Melina, hereinafter simply Chang.

Regarding claims 1, 16, 31, and 32, Chang teaches a system for efficient storage of data for use by an application, comprising:

a set top box (page 493, left column, see abstract), including,

a physical memory (page 493, left column, abstract and 3<sup>rd</sup> paragraph; Chang discloses cache memory),

a bulk storage device (page 493, left column, abstract and 3<sup>rd</sup> paragraph; Chang discloses integrated memory), and

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a memory management unit (MMU) coupled between said application and said physical memory and said bulk storage device (page 493, left column, abstract, 3<sup>rd</sup> paragraph; page 494; right column, See Fig 1 and 1<sup>st</sup> paragraph),

wherein said physical memory and said bulk storage device are configured to store said data (page 493, left column, abstract and 3<sup>rd</sup> paragraph), and

said MMU is configured to translate a virtual address provided by said application to a physical address used by one of said physical memory and said bulk storage device (page 495, left column, See Fig 2 and 5<sup>th</sup> paragraph; Chang discloses address translation from virtual address to physical address).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 2-7, 10, 17-22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over MEDIC: a memory and disk cache for multimedia client, Edward Chang and Hector Garcia-Melina, hereinafter simply Chang, in view of Baldwin (US Patent 7,050,061 B1).

Regarding claims 2 and 17, Chang teaches the limitations of the claims 1, 16, 31, and 32 above. However, Chang does not teach page pages of the data stored in the physical memory to and from said bulk storage device. Baldwin teaches a system, wherein said MMU is configured to page pages of said data stored in said physical memory to and from said bulk storage device (column 3, lines 62-67; column 23, lines 53-67). At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the Chang with Baldwin. The motivation for doing so would have been an efficient memory translation from virtual address into physical address (column 7, lines 2-7) and an efficient cache architecture and memory organization (column 22, lines 1-4).

Regarding claims 3-7 and 18-22, Baldwin teaches a system, wherein said MMU is configured to page said pages using an algorithm is based on a least-recently-used, a FIFO (column 26, lines 40-41), a LIFO, and a best fit (it is clear that other algorithms such as LIFO and a best fit can be used).

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Regarding claims 10 and 25, Baldwin teaches a system, wherein said bulk storage device comprises a hard disk (column 3, lines 48-50).

3. Claims 8-9, 11-15, 23-24, and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over MEDIC: a memory and disk cache for multimedia client, Edward Chang and Hector Garcia-Melina, hereinafter simply Chang, in view of Lemmons et al. (US Patent Application 2001/0013126 A1), hereinafter simply Lemmons.

Regarding claims 8 and 23, Chang teaches the limitations of the claims 1, 16, 31 and 32 above. However, Chang does not teach a program guide for a plurality of program sources. Lemmons teaches a system, wherein said data comprises program guide data for said application comprising a program guide for a plurality of program sources (paragraph 40). At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the Chang with Lemmons. The motivation for doing so would have been allowing user to locate programs of interest by applying a restrictive search selection criteria and a nonrestrictive sort attribute to program schedule information (paragraph 190).

Regarding claims 9 and 24, Lemmons teaches a system, wherein said physical memory comprises a random access memory (RAM) (paragraph 44).

Regarding claims 11, 12, 26, and 27, Lemmons teaches a system, further comprising a communications channel (paragraph 40) configured to transmit said program guide data to said set top box, wherein said communications channel is configured as one of a satellite communications channel, a cable communications channel, a digital video broadcasting (DVB) communications channel and a terrestrial broadcast communications channel (paragraphs 37, and 120).

Regarding claims 13 and 28, Lemmons teaches a system, wherein said program guide is configured to display said program guide data on a device coupled to said set top box in a tabular form including program times, program channels and program identifications (paragraph 38).

Regarding claims 14 and 29, Lemmons teaches a system, wherein said program identifications include information regarding at least one of actors, ratings, description of programs, cost for pay per view, a frequency of said communications channel, a video channel within said frequency, and an audio channel within said frequency (paragraphs 53 and 82).

Regarding claims 15 and 30, Lemmons teaches a system, wherein said data comprises one of data structures, executable code, displayable user interface data, and Web page data for said application comprising a database application, an executable

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program application, a user interface program application, and a Web browser program application (paragraphs 25, 84, and 85).



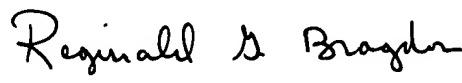
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel B. Ko whose telephone number is 571-272-8194.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald G. Bragdon can be reached on 571-272-4204. The fax phone number for the organization where this application or proceeding is assigned is 703-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel B. Ko  
AU 2189

  
REGINALD G. BRAGDON  
PRIMARY EXAMINER